WHAT IS CLAIMED IS:

1. An apparatus for locking and unlocking the brake actuator of a dual chamber brake system that operates with compressed air, wherein the dual chamber includes a brake actuator in a first chamber and a high spring-rate spring in a second chamber, the brake actuator being movable in the axial direction to apply and release the brakes of the brake system; in the absence of compressed air the high spring-rate spring expanding to bias and keep the brake actuator in an axially forward position locking the brakes of the brake system, and wherein when there is compressed air in the second chamber the high spring-rate spring is compressed and allows retraction of the brake actuator from its forward position to unlock the brakes, the apparatus comprising:

electro mechanical means responsive to a first anti-terrorist coded signal for venting pressurized air from the second chamber and for preventing entry of pressurized air into the second chamber whereby expansion of the high spring-rate spring causes the brake actuator to move into the axially forward position locking the brakes of the brake system, the electro mechanical means also being responsive to a second coded signal for allowing pressurized air to enter into the second chamber and for disallowing the venting of pressurized air from the second chamber thereby unlocking the brake actuator and unlocking the brakes.

2. An apparatus in accordance with Claim 1 wherein an inlet port is included in the second chamber, said inlet port allowing attachment of a hose through which pressurized air is normally supplied to the second chamber, and

wherein the electro mechanical means include a solenoid valve mounted in the second chamber to shut-off the supply of pressurized air through the inlet port in response to the first coded signal, and allow the supply of pressurized air through the inlet port in response to the second coded signal.

3. An apparatus in accordance with Claim 2 wherein a conduit is included in the second chamber for venting pressurized air, said conduit being controlled by the solenoid valve, and wherein the solenoid valve allows the venting of pressurized air through the conduit in response to the first coded signal, and disallows the venting in response to the second coded signal.

4. An apparatus in accordance with Claim 1 wherein the electro mechanical means include a solenoid valve and a receiver decoder, said receiver decoder being adapted for receiving the first and second coded signals and for controlling the solenoid valve in response to said signals.

5. An apparatus in accordance with Claim 4 wherein the solenoid valve is controlled by the flow of electric current and wherein pressurized air is vented from the second chamber and entry of pressurized air into the second chamber is prevented in the absence of flow of current through the solenoid valve.

6. An apparatus in accordance with Claim 5 wherein the current is supplied from a power source, a switch is interposed between the power Source and the solenoid valve, and wherein the receiver decoder controls the switch in response to the first and second signals, respectively.

7. A dual chamber brake system that operates with compressed air to be used in trailers and vehicles, the brake system including a brake actuator in a

first chamber and a high spring-rate spring in a second chamber, the brake actuator being movable in the axial direction to apply and release the brakes of the brake system; in the absence of compressed air the high spring-rate spring expanding to bias and keep the brake actuator in an axially forward position locking the brakes of the brake system, the high spring-rate spring being compressed and allowing retraction of the brake actuator from its forward position so as to unlock the brakes when there is compressed air in the second chamber, the brake system further comprising:

electro mechanical means responsive to a first anti-terrorist coded signal for venting pressurized air from the second chamber and for preventing entry of pressurized air, into the second chamber whereby expansion of the high spring-rate spring causes the brake actuator to move into the axially forward position locking the brakes of the brake system, the electro mechanical means also being responsive to a second coded signal for allowing pressurized air to enter into the second chamber and for disallowing the venting of pressurized air from the second chamber thereby unlocking the brake actuator and unlocking the brakes.

8. A dual chamber brake system in accordance with Claim 7 wherein an inlet port is included in the second chamber, said inlet port allowing attachment of a hose through which pressurized air is normally supplied to the second chamber, and wherein the electro mechanical means include a solenoid valve mounted in the second chamber to shut-off the supply of pressurized air through the inlet port in response to the first coded signal, and allow the supply of pressurized air through the inlet port in response to the second coded

signal.

9. A dual chamber brake system in accordance with Claim 8 wherein a conduit is included in the second chamber for venting pressurized air, said conduit being controlled by the solenoid valve, and wherein the solenoid valve allows the venting of pressurized air through the conduit in response to the first coded signal, and disallows the venting in response to the second coded signal.

10. A dual chamber brake system in accordance with Claim 7 wherein the electro mechanical means include a solenoid valve and a receiver decoder, said receiver decoder being adapted for receiving the first and second coded signals and for controlling the solenoid valve in response to said signals.

11. A dual chamber brake system in accordance with Claim 10 wherein the solenoid valve is controlled by the flow of electric current and wherein pressurized air is vented from the second chamber and entry of pressurized air into the second chamber is prevented in the absence of flow of current through the solenoid valve.

12. A dual chamber brake system in accordance with Claim 11 wherein the current is supplied from a power source, a switch is interposed between the power source and the solenoid valve, and wherein the receiver decoder controls the switch in response to the first and second signals, respectively.

13. An apparatus for locking and unlocking the brake actuator of a dual chamber brake system that operates with compressed air, wherein the dual chamber includes a brake actuator in a first chamber and a high spring-rate spring in a second chamber, the brake actuator being movable in the axial

direction to apply and release the brakes of the brake system; in the absence of compressed air the high spring-rate spring expanding to bias and keep the brake actuator in an axially forward position locking the brakes of the brake system, and wherein when there is compressed air in the second chamber the high spring-rate spring is compressed and allows retraction of the brake actuator from its forward position to unlock the brakes, the apparatus comprising:

electro mechanical means responsive to a first anti-terrorist coded signal or to a third anti-theft coded signal different from the first signal, for venting pressurized air from the second chamber and for preventing entry of pressurized air into the second chamber whereby expansion of the high spring rate spring causes the brake actuator to move into the axially forward position locking the brakes of the brake system, the electro mechanical means also being responsive to a second coded signal or to a fourth coded signal for allowing pressurized air, to enter into the second chamber and for disallowing the venting of pressurized air from the second chamber thereby unlocking the brake actuator and unlocking the brakes.

14. An apparatus in accordance with Claim 13 wherein an inlet port is included in the second chamber, said inlet port allowing attachment of a hose through which pressurized air is normally supplied to the second chamber, and wherein the electro mechanical means include a solenoid valve mounted in the second chamber to shut-off the supply of pressurized air through the inlet port in response to the first or to the third coded signal, and allow the supply of pressurized air through the inlet port in response to the second coded or to the

~~fourth coded signal~~.

15. An apparatus in accordance with Claim 14 wherein a conduit is included in the second chamber for venting pressurized air, said conduit being controlled by the solenoid valve, and wherein the solenoid valve allows the venting of pressurized air through the conduit in response to the first coded signal or in response to the third coded signal, and disallows the venting in response to the second coded signal or in response to the fourth coded signal.

16. An apparatus in accordance with Claim 13 wherein the electro mechanical means include a solenoid valve and a receiver decoder, said receiver decoder being adapted for receiving the first, second, third and fourth coded signals and for controlling the solenoid valve in response to said signals.

17. An apparatus in accordance with Claim 16 wherein the solenoid valve is controlled by the flow of electric current and wherein pressurized air is vented from the second chamber and entry of pressurized air into the second chamber is prevented in the absence of flow of current through the solenoid valve.

18. An apparatus in accordance with Claim 17 wherein the current is supplied from a power source, and wherein the apparatus further comprises switch and circuit means interposed between the power source and the solenoid valve and wherein the receiver decoder controls the switch and circuit means in response to the first, second, third and fourth signals, respectively, the switch and circuit means being adapted for

(1) interrupting the flow of current in response to the first signal received by the receiver decoder;

(2) interrupting the flow of current in response to the third signal received by the receiver decoder;

(3) allowing the flow of current in response to the second signal, received by the receiver decoder, and

(4) allowing the flow of current in response to the fourth signal received by the receiver decoder.

19. An apparatus in accordance with Claim 18 wherein the switch and circuit means include three separate switches, one of said switches being a proximity switch controlled by the position of the brake actuator and staying in a closed position when pressurized air is present in the second chamber, the other two switches being controlled by the receiver decoder.

20. An apparatus in accordance with Claim 19 wherein the switch and circuit means include

(1) a conducting line between the solenoid valve and the power source, said conducting line including one of said switches controlled by the receiver decoder in response to the first and second coded signals, the proximity switch being in line with said switch controlled by the receiver decoder in response to the first and second coded signals,

(2) the switch and circuit means further including a second conducting line in parallel with the proximity switch and in line with the switch controlled by the receiver decoder in response to the first and second coded signals, said second conducting line including the second of the three switches, said second

switch being controlled by the receiver decoder in response to the third and fourth coded signals.

21. A dual chamber brake system for locking and unlocking the brake actuator of a dual chamber brake system that operates with compressed air to be used in trailers and vehicles, the brake system including a brake actuator in a first chamber and a high spring-rate spring in a second chamber, the brake actuator being movable in the axial direction to apply and release the brakes of the brake system; in the absence of compressed air the high spring-rate spring expanding to bias and keep the brake actuator in an axially forward position locking the brakes of the brake system, and wherein when there is compressed air in the second chamber the high spring-rate spring is compressed and allows retraction of the brake actuator from its forward position to unlock the brakes, the dual chamber brake system further comprising:

electro mechanical means responsive to a first anti-terrorist coded signal or to a third anti-theft coded signal different from the first signal, for venting pressurized air from the second chamber and for preventing entry of pressurized air into the second chamber whereby expansion of the high spring-rate spring causes the brake actuator to move into the axially forward position locking the brakes of the brake system, the electro mechanical means also being responsive to a second coded signal or to a fourth coded signal for allowing pressurized air to enter into the second chamber and for disallowing the venting of pressurized air from the second chamber thereby unlocking the brake actuator and unlocking the brakes.

22. A dual chamber brake system in accordance with Claim 21 wherein

an inlet port is included in the second chamber, said inlet port allowing attachment of a hose through which pressurized air is normally supplied to the second chamber, and wherein the electro mechanical means include a solenoid valve mounted in the second chamber to shut-off the supply of pressurized air through the inlet port in response to the first or to the third coded signal, and allow the supply of pressurized air through the inlet port in response to the second coded or to the fourth coded signal.

23. A dual chamber brake system in accordance with Claim 22 wherein a conduit is included in the second chamber for venting pressurized air, said conduit being controlled by the solenoid valve, and wherein the solenoid valve allows the venting of pressurized air through the conduit in response to the first coded signal or in response to the third coded signal, and disallows the venting in response to the second coded signal or in response to the fourth coded signal.

24. A dual chamber brake system in accordance with Claim 21 wherein the electro mechanical means include a solenoid valve and a receiver decoder, said receiver decoder being adapted for receiving the first, second, third and fourth coded signals and for controlling the solenoid valve in response to said signals.

25. A dual chamber brake system in accordance with Claim 24 wherein the solenoid valve is controlled by the flow of electric current and wherein pressurized air is vented from the second chamber and entry of pressurized air into the second chamber is prevented in the absence of flow of current through the solenoid valve.

26. A dual chamber brake system in accordance with Claim 25 wherein the current is supplied from a power source, and wherein the apparatus further comprises switch and circuit means interposed between the power source and the solenoid valve and wherein the receiver decoder controls the switch and circuit means in response to the first, second, third and fourth signals, respectively, the switch and circuit means being adapted for:

(1) interrupting the flow of current in response to the first signal received by the receiver decoder;

(2) interrupting the flow of current in response to the third signal received by the receiver decoder;

(3) allowing the flow of current in response to the second signal received by the receiver decoder, and

(4) allowing the flow of current in response to the fourth signal received by the receiver decoder.

27. A dual chamber brake system in accordance with Claim 26 wherein the switch and circuit means include three separate switches, one of said switches being a proximity switch controlled by the position of the brake actuator and staying in a closed position when pressurized air is present in the second chamber, the other two switches being controlled by the receiver decoder.

28. A dual chamber brake system in accordance with Claim 27 wherein the switch and circuit means include

(1) a conducting line between the solenoid valve and the power source, said conducting line including one of said switches controlled by the receiver

decoder in response to the first and second coded signals, the proximity switch being in line with said switch controlled by the receiver decoder in response to the first and second coded signals,

(2) the switch and circuit means further including a second conducting line in parallel with the proximity switch and in line with the switch controlled by the receiver decoder in response to the first and second coded signals, said second conducting line including the second of the three switches, said second switch being controlled by the receiver decoder in response to the third and fourth coded signals.